

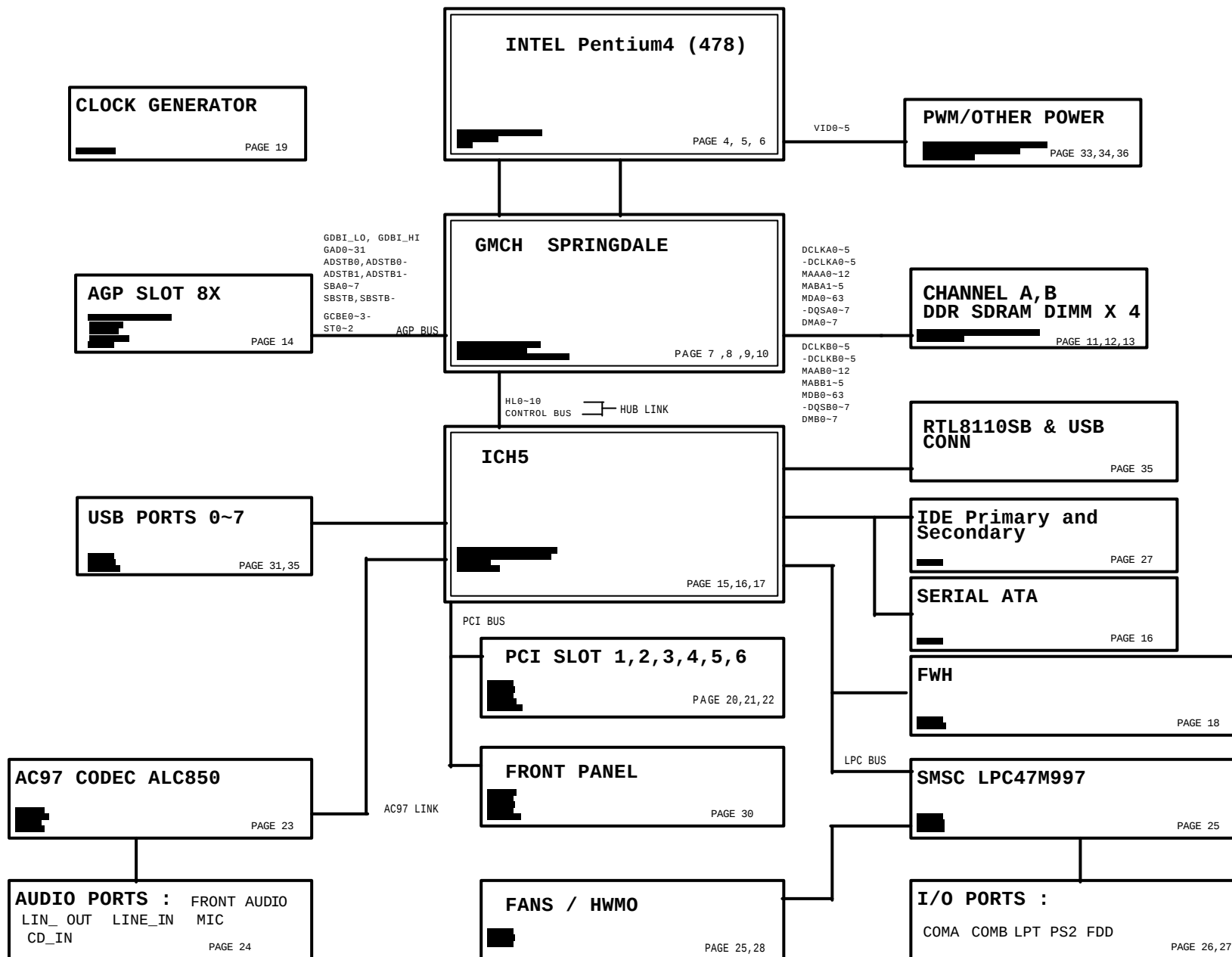
# GIGABYTE GA-8IPE1000-G REV4.0 Schematics

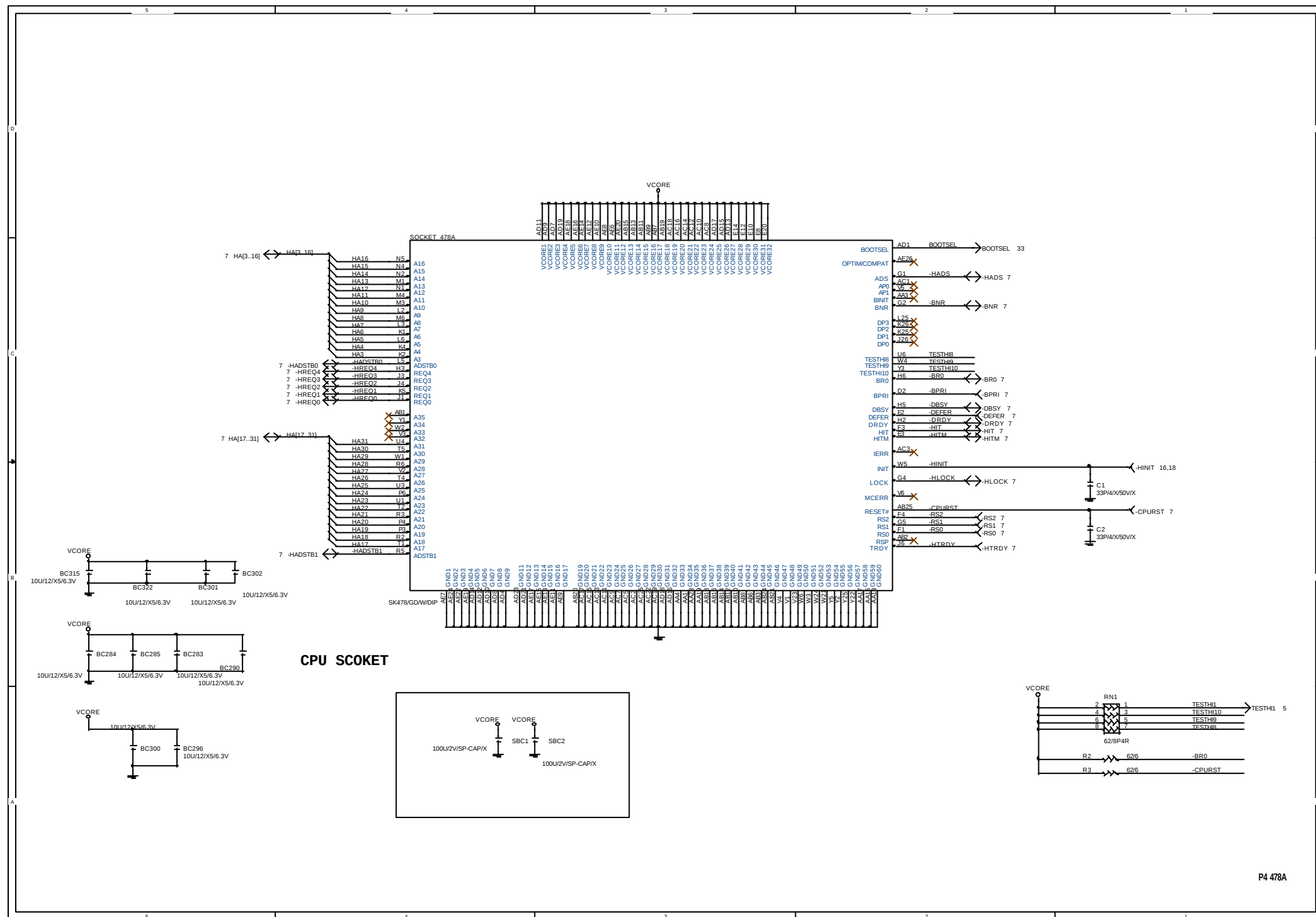
|    |                               |
|----|-------------------------------|
| 01 | COVER SHEET                   |
| 02 | BOM & PCB MODIFY HISTORY      |
| 03 | BLOCK DIAGRAM                 |
| 04 | P4_478A                       |
| 05 | P4_478B                       |
| 06 | P4_478C                       |
| 07 | SPRINGDALE HOST               |
| 08 | SPRINGDALE DDR                |
| 09 | SPRINGDALE AGP, HUB, CSA, VGA |
| 10 | SPRINGDALE PWR                |
| 11 | DDR1,2 CHANNEL A              |
| 12 | DDR3,4 CHANNEL B              |
| 13 | DDR TERMINATION               |
| 14 | AGP                           |
| 15 | ICH5 PCI, USB, HUB, LAN       |
| 16 | ICH5 IDE, GPIO, SATA, CTRL    |
| 17 | ICH5 VCC, GND                 |
| 18 | FWH                           |
| 19 | ICS952603 CLOCK GEN           |
| 20 | PCI1_2                        |
| 21 | PCI3_4                        |
| 22 | PCI5                          |

|     |                            |
|-----|----------------------------|
| 23  | CODEC                      |
| 24  | AUDIO JACK, L_OUT, F_AUDIO |
| 25  | SMSC LPC47M997             |
| 26  | COM_LPT                    |
| 27  | IDE                        |
| 28  | FAN                        |
| 29  | KB_PS2                     |
| 30  | FPANEL                     |
| 31  | USB CONN                   |
| 32  | ALL POWER                  |
| 33  | VCORE POWER                |
| 34  | ATX, OTHERS POWER          |
| 35  | REALTEK RTL8110SB LAN      |
| 36  | DDR POWER                  |
| 37  | PCI ROUNT LIST             |
| 38  | GPIO LIST                  |
| PCB | 304.8*220.091mm/C/60+-15%  |
|     |                            |



# BLOCK DIAGRAM

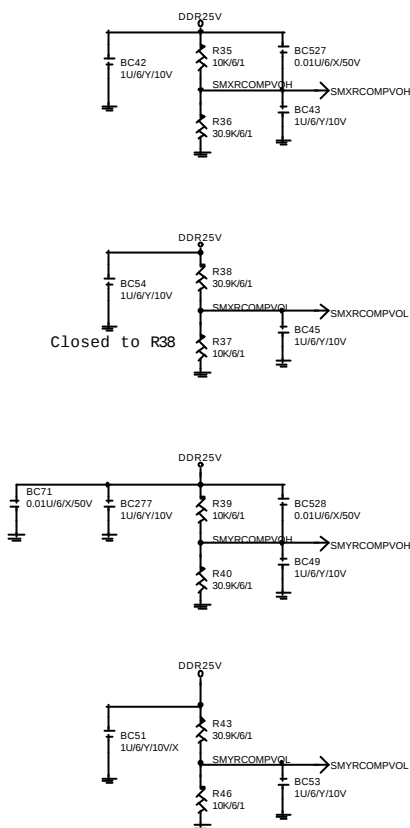
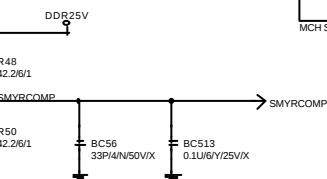
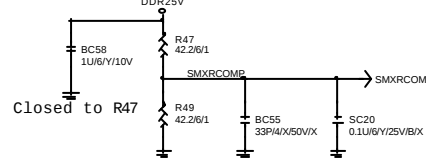






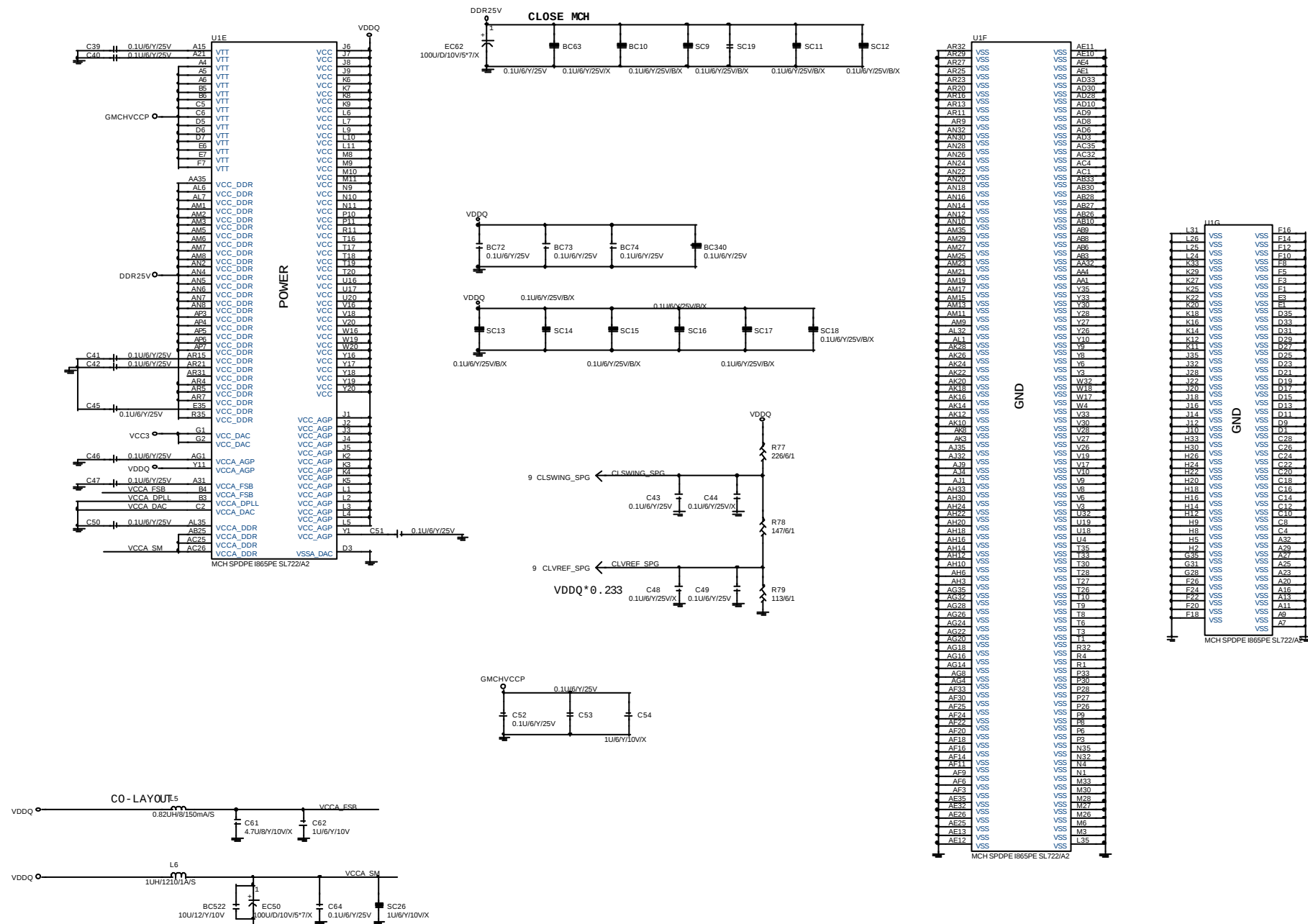


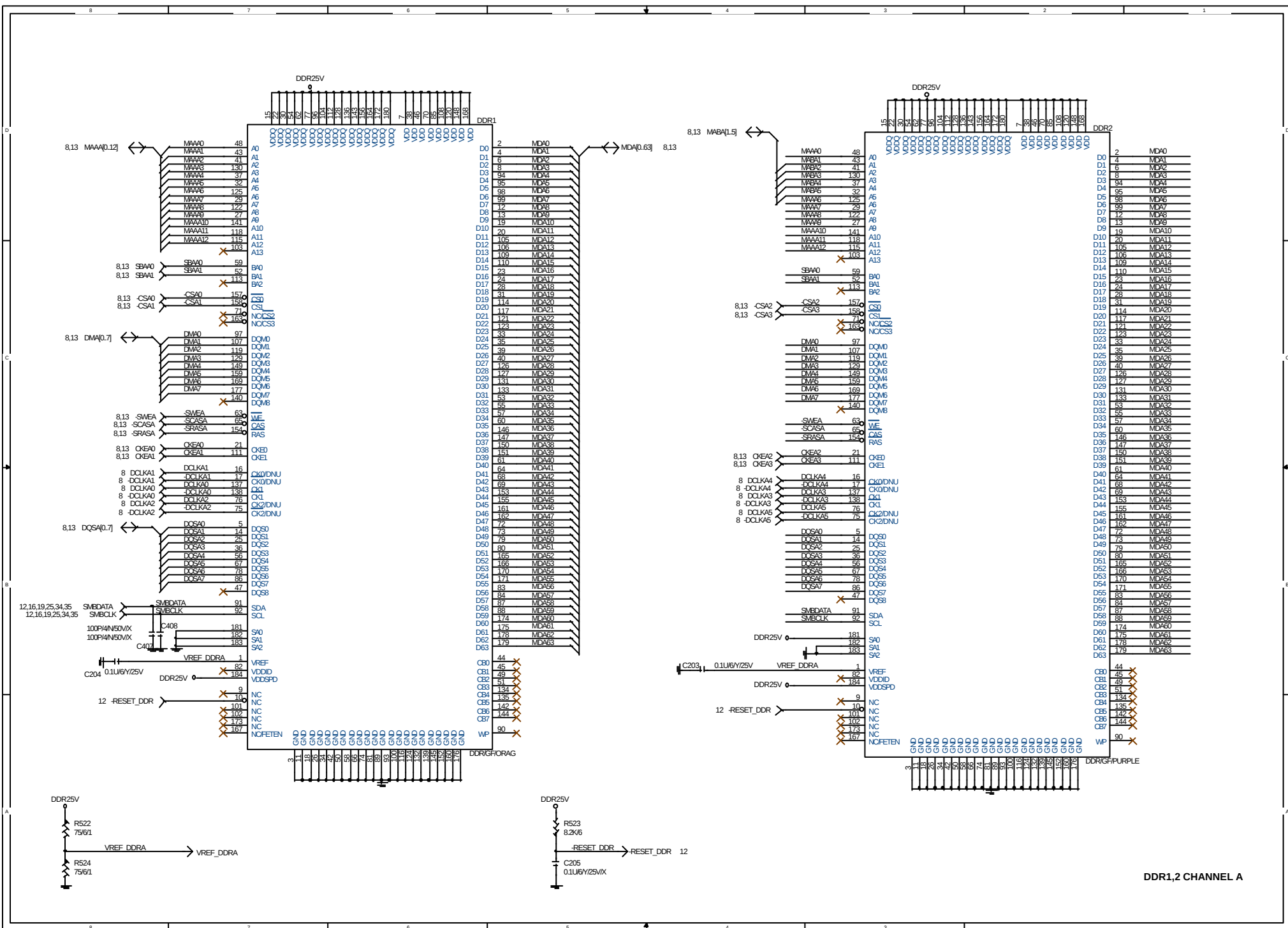




SPRINGDALE DDR





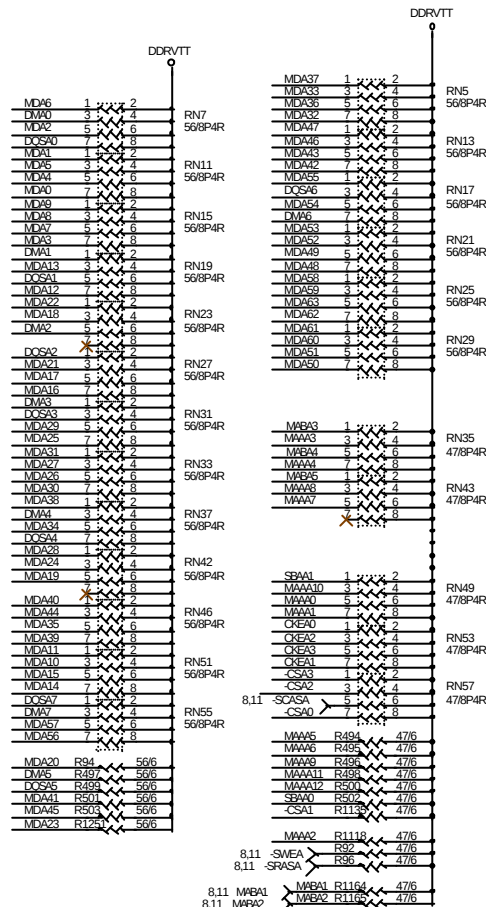


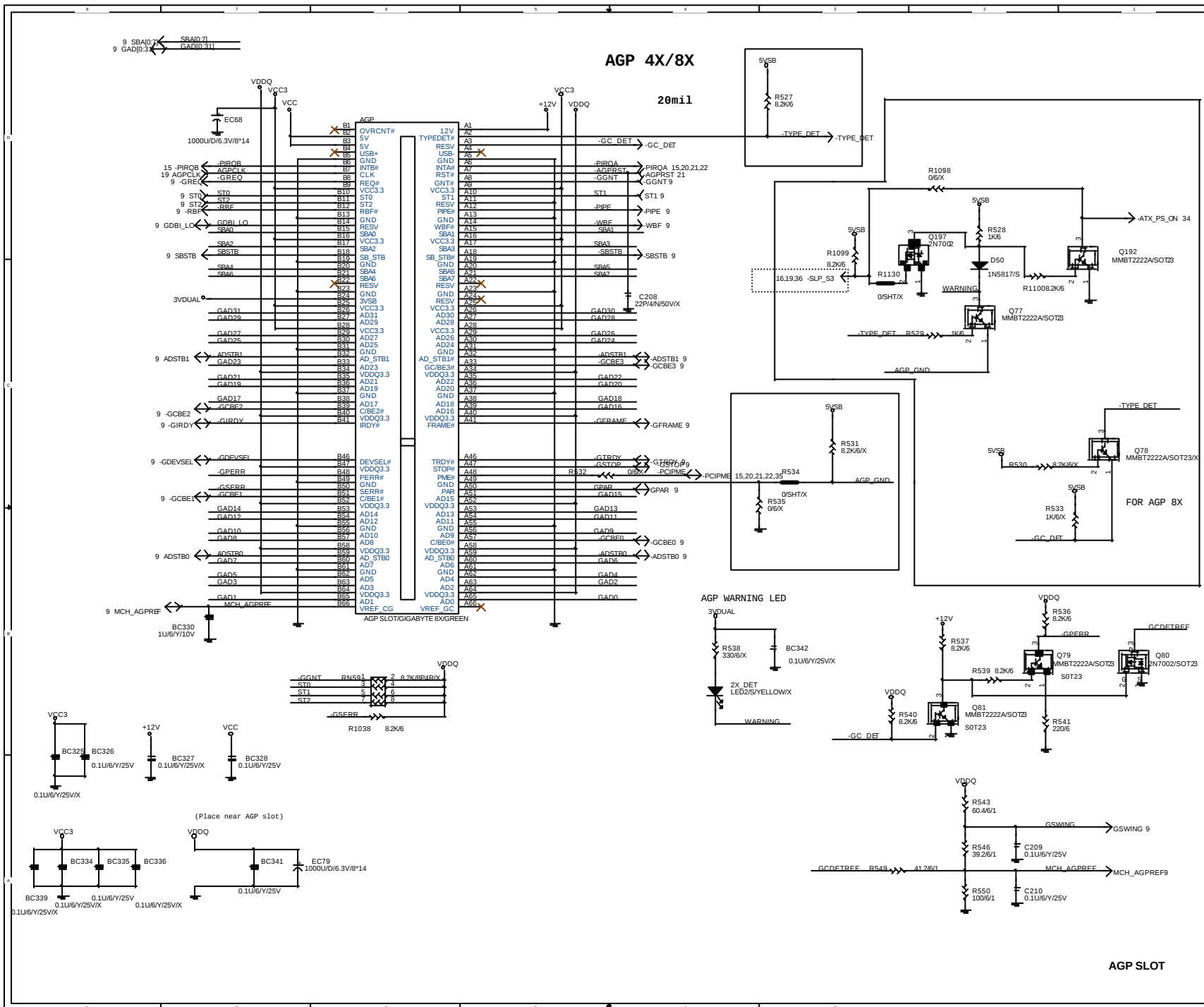


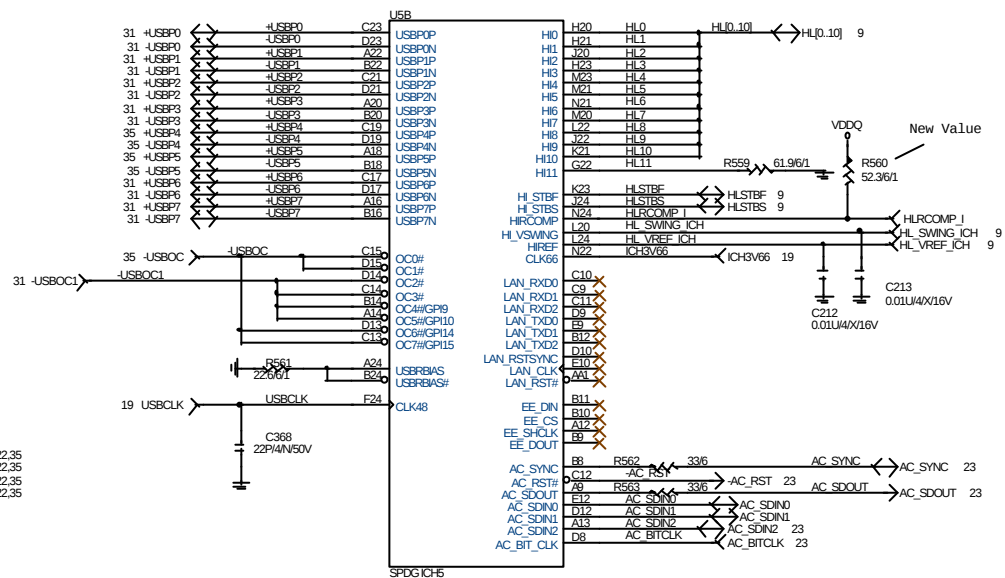
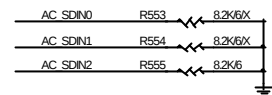
# DDR TERMINATION CHANNEL A

## DDRVTT Decouple

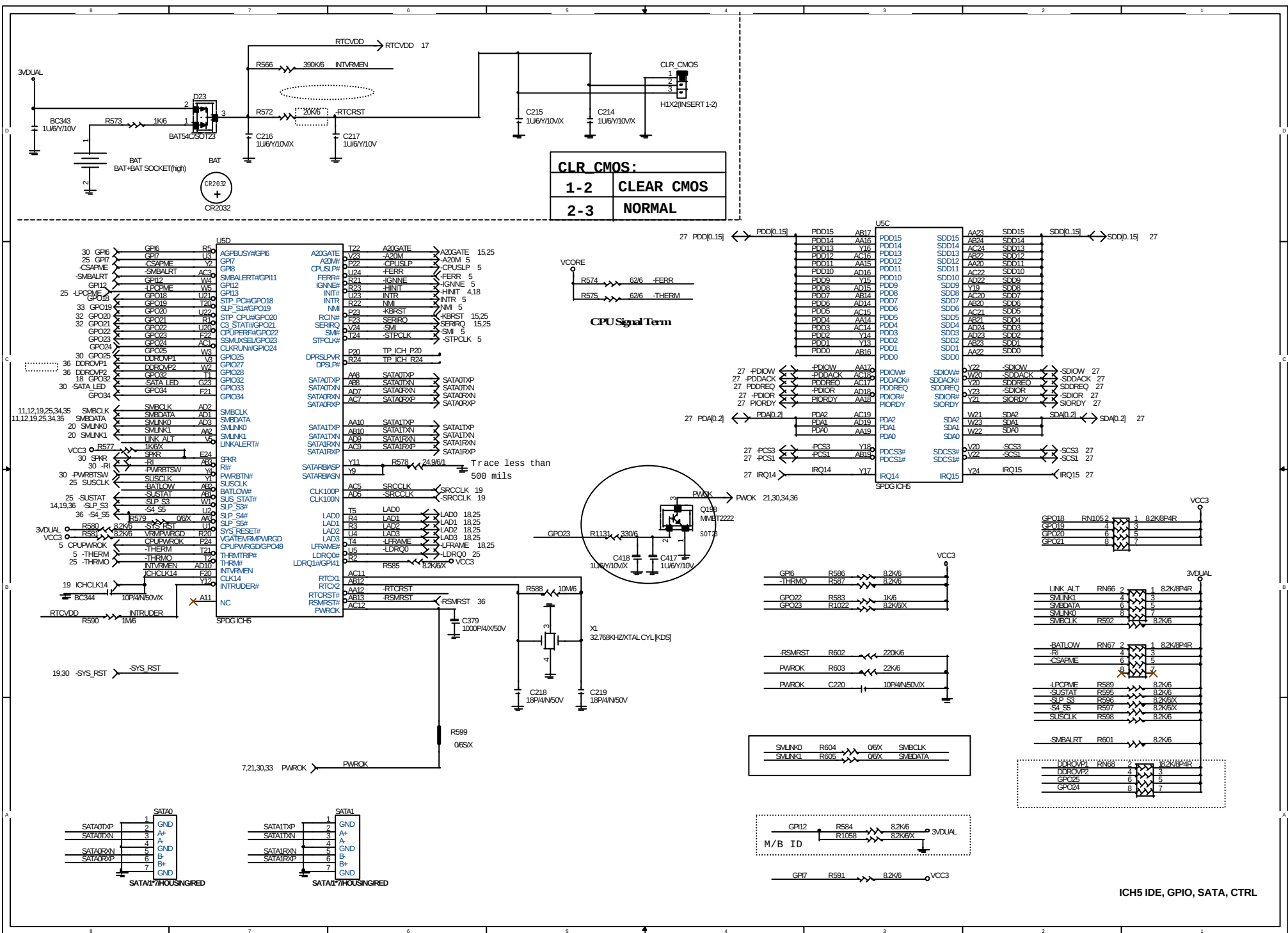
## CHANNEL B

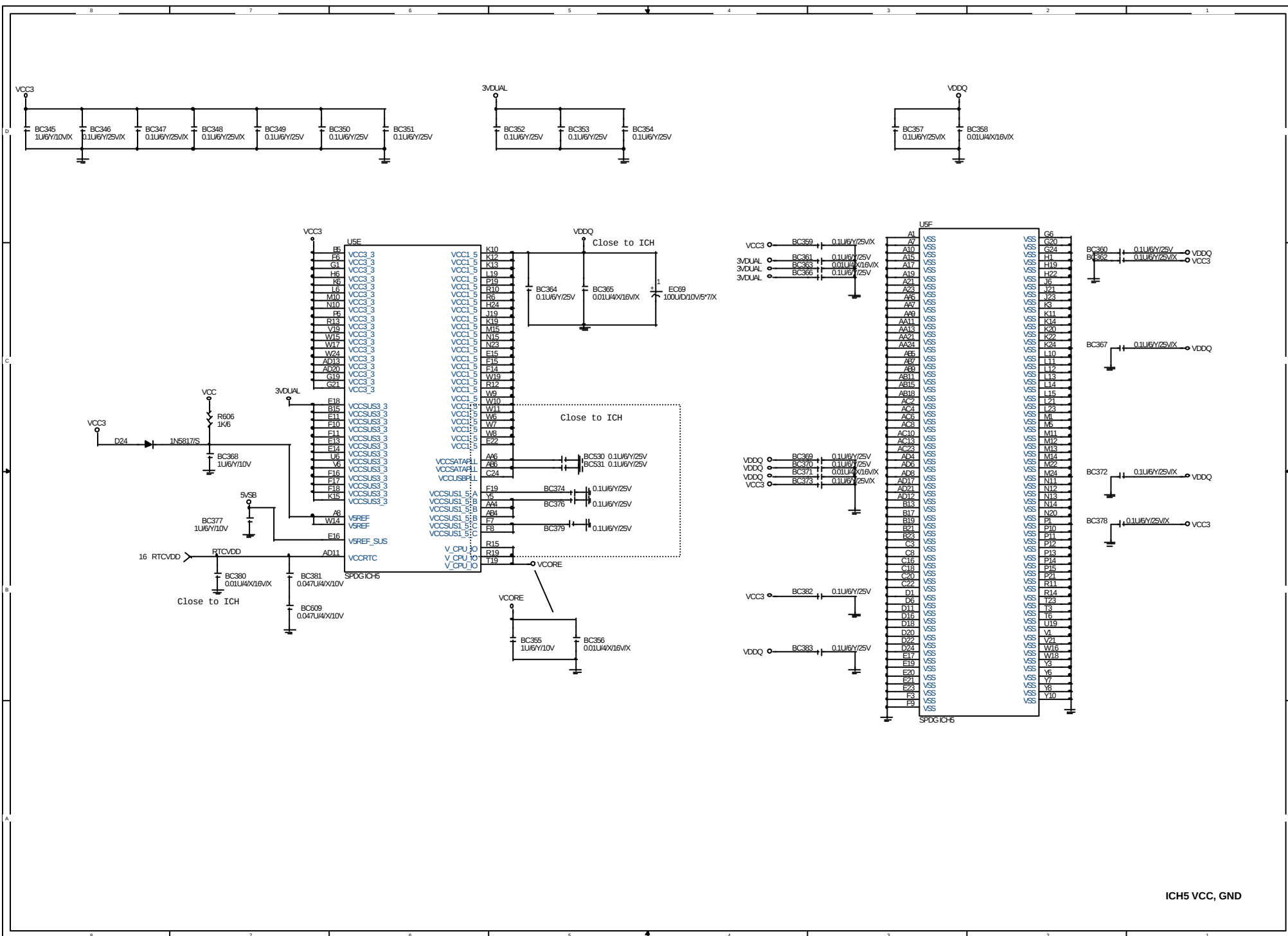


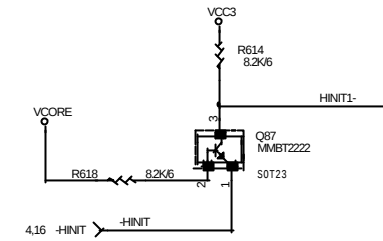
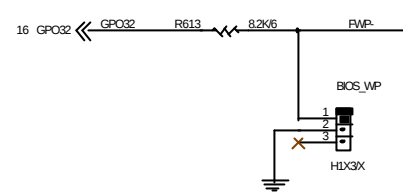




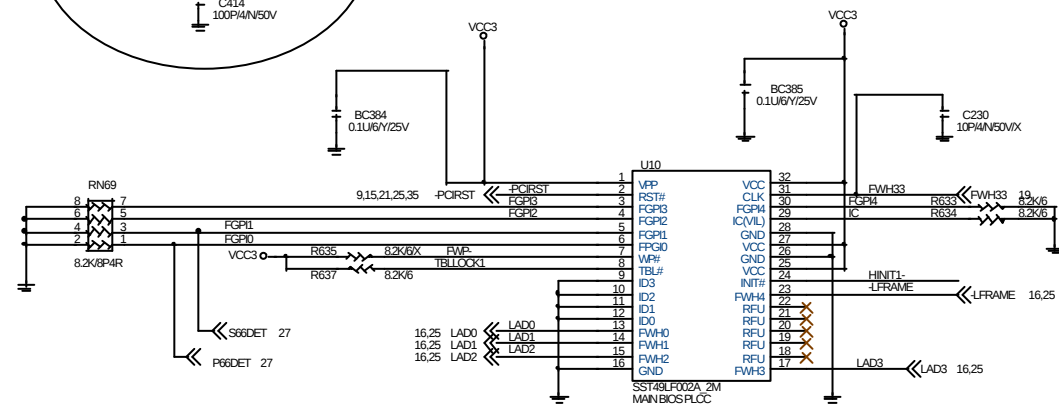
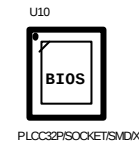
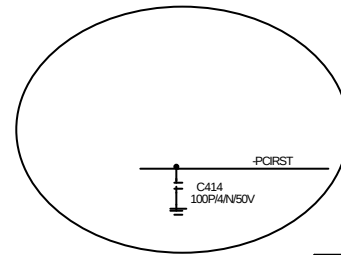
ICH5 PCI, USB, HUB, LAN







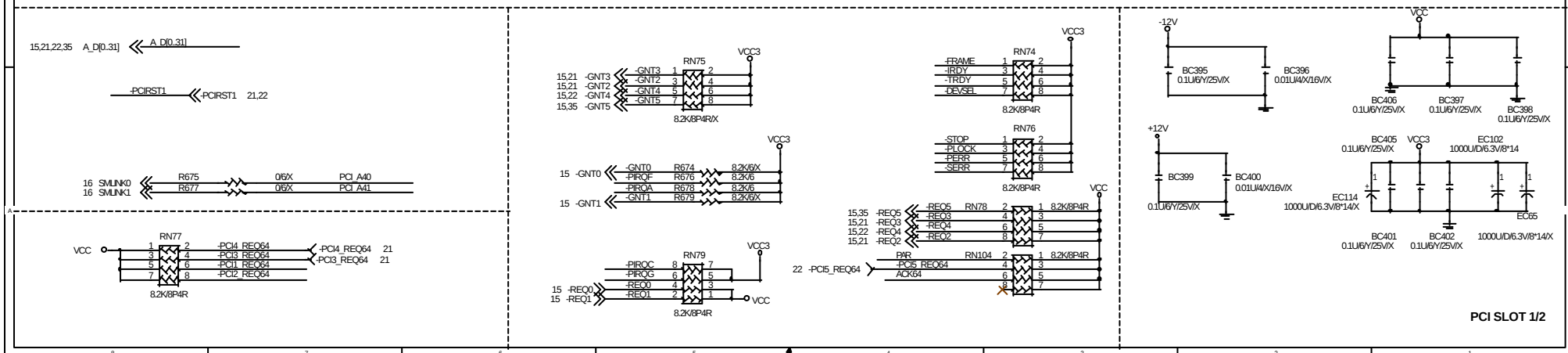
| BIOS_WP: |               |
|----------|---------------|
| 1-2      | WRITE PROTECT |
| 2-3      | DISABLE       |

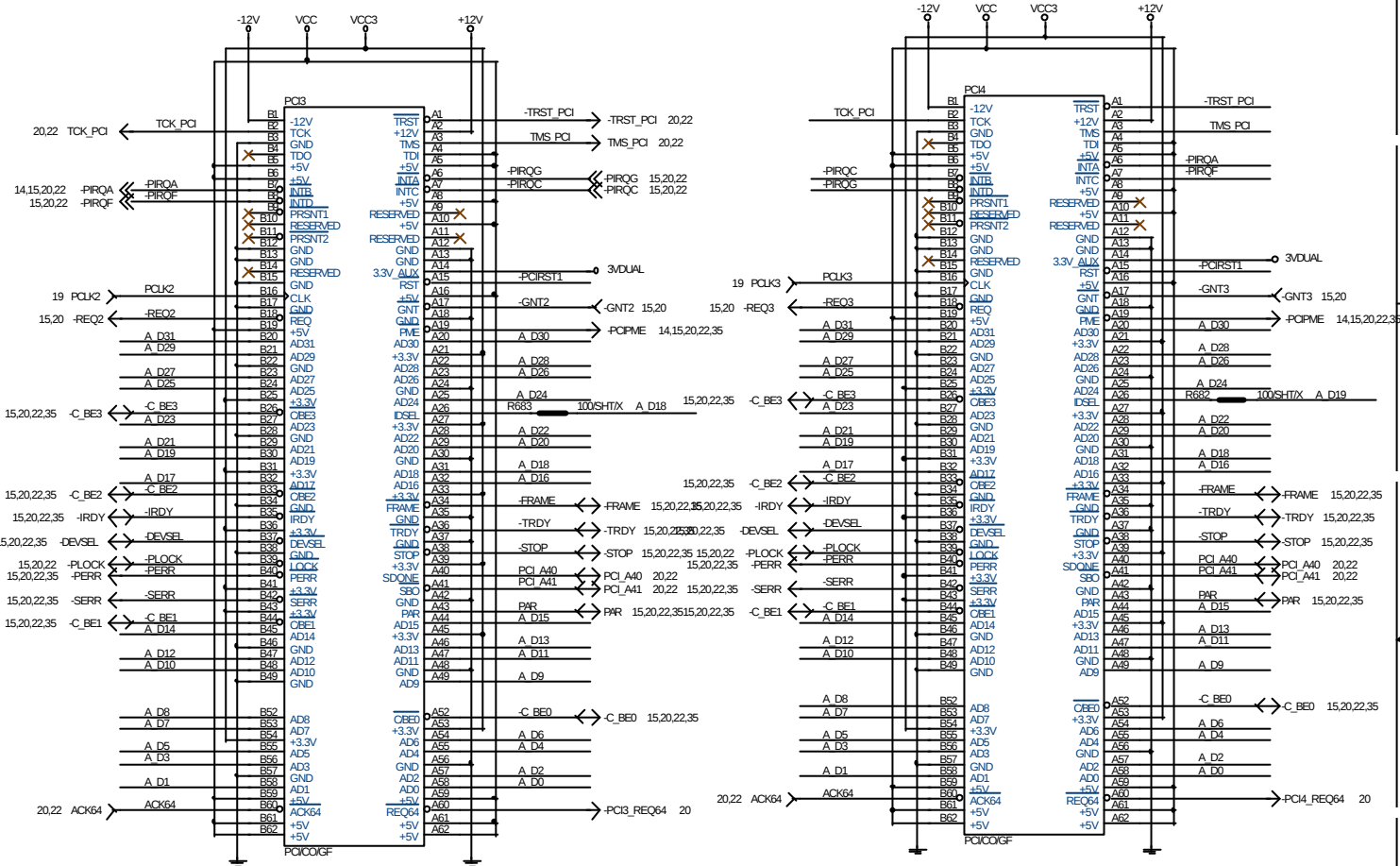


ADD WINBOUD FWH SEC. SOURCE

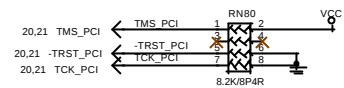
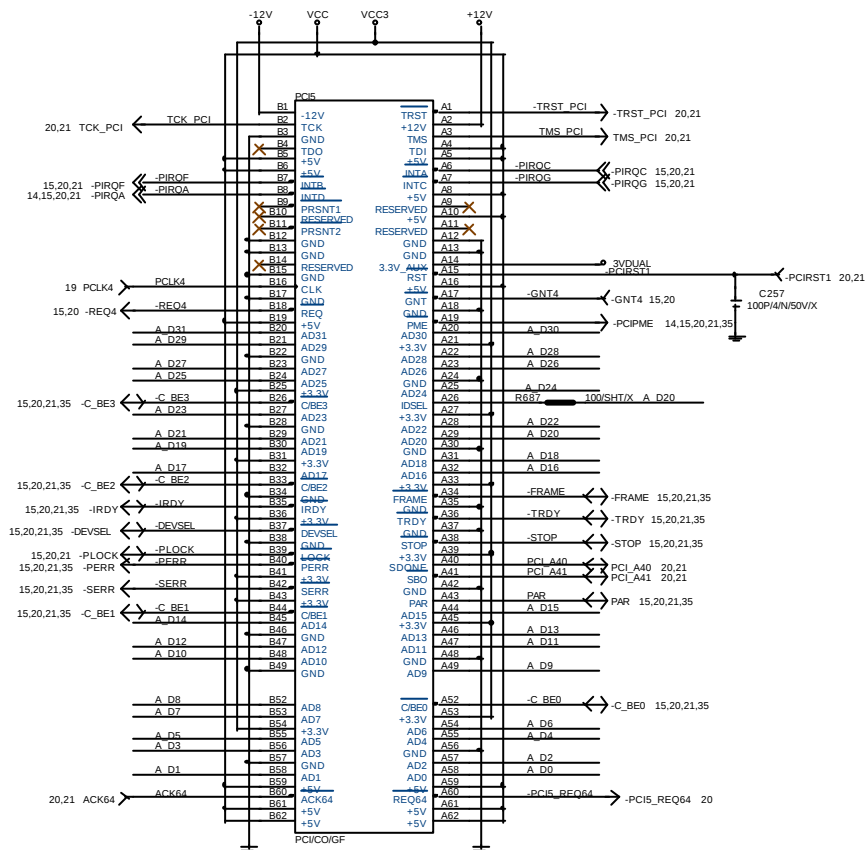
FWH



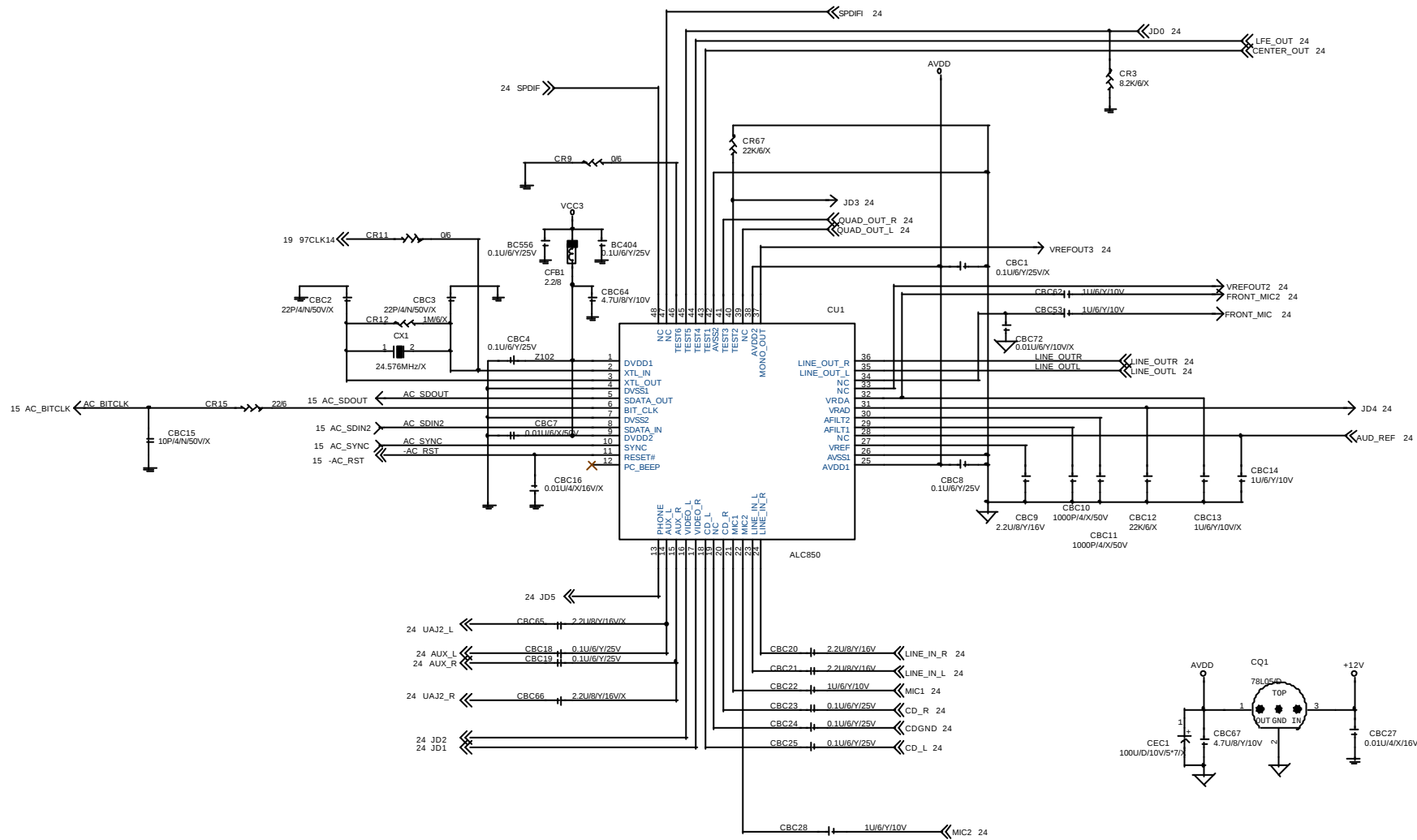




15,20,21,35 A\_D[0..31] ← A\_D[0..31]

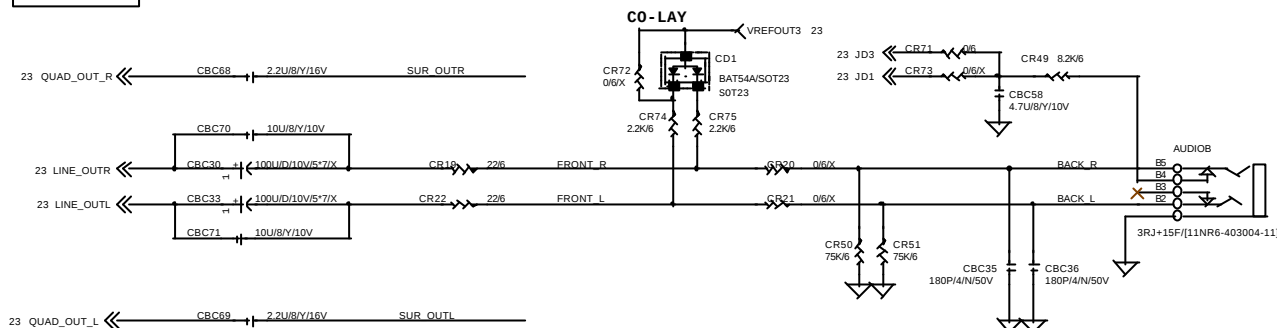


PCI SLOT 5/6

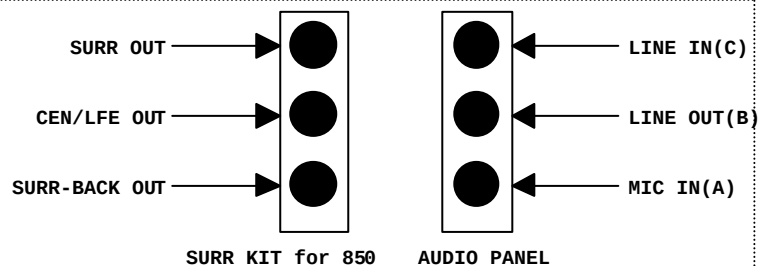
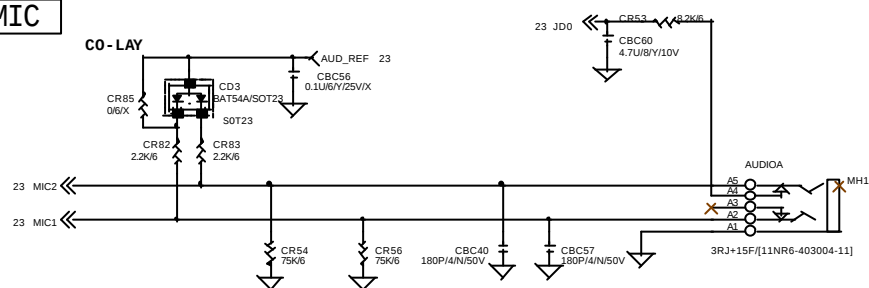


ALC850

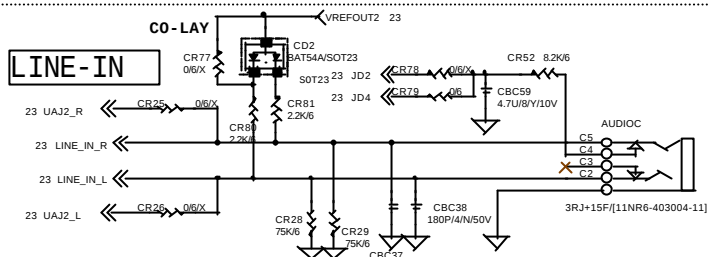
LINE OUT



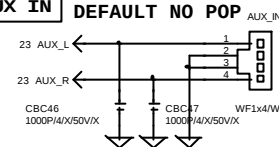
## MIC



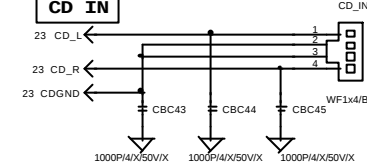
LINE-IN



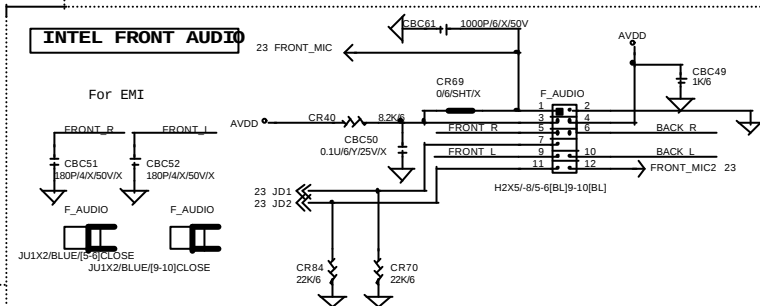
**AUX IN**    **DEFAULT NO POP**



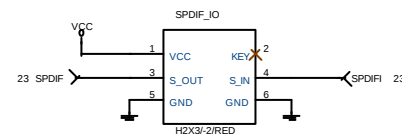
CD IN



**INTEL FRONT AUDIO**

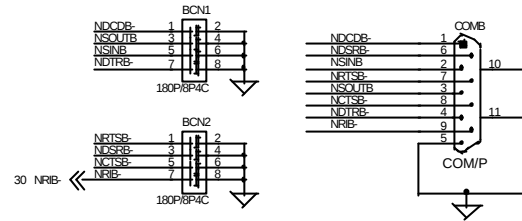
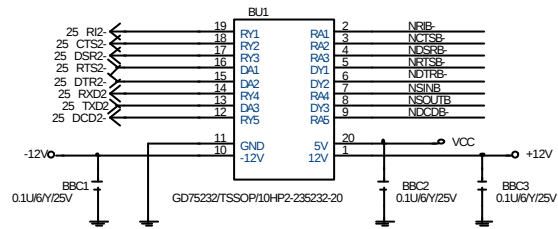
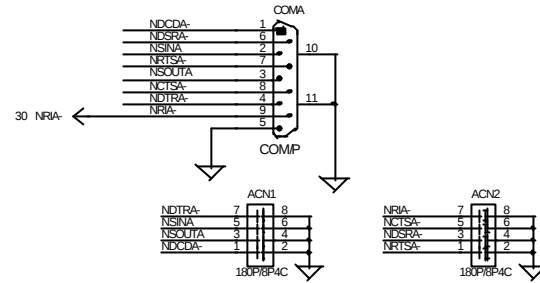
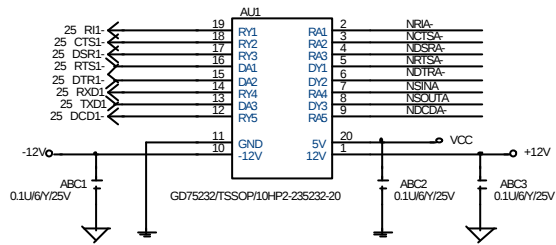


## SPDIF\_IO

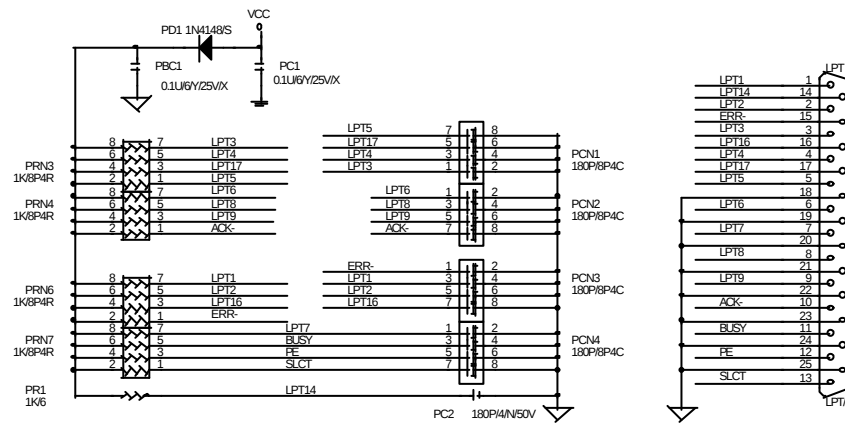
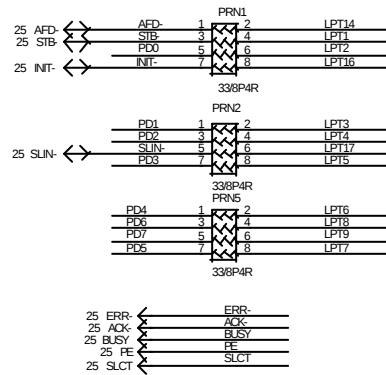


**AUDIO OUTPUT, GAME PORT**

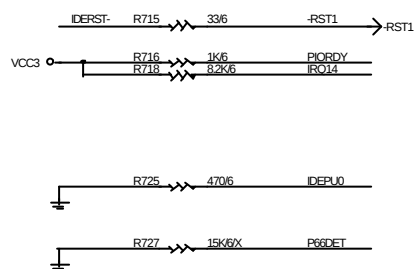
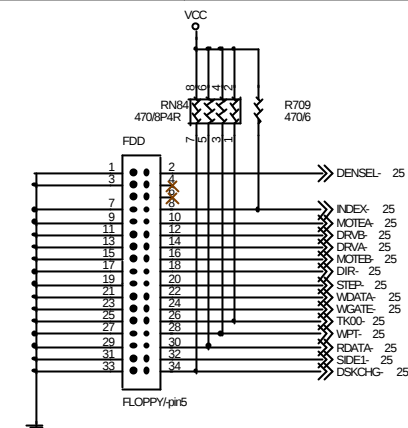
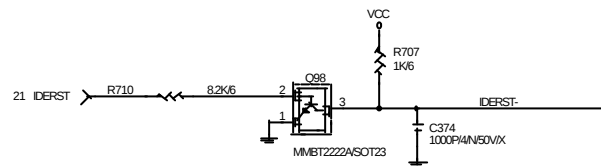




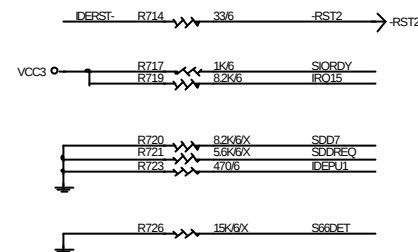
25 PD[0..7] ↔ PD[0..7]



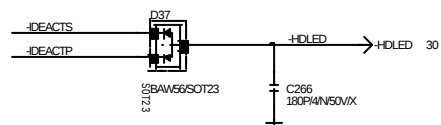
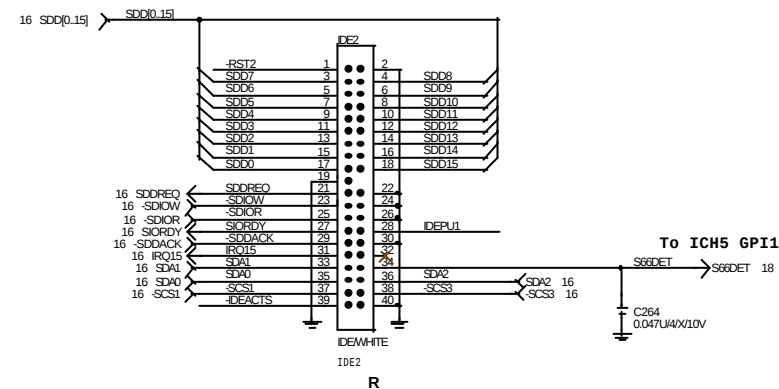
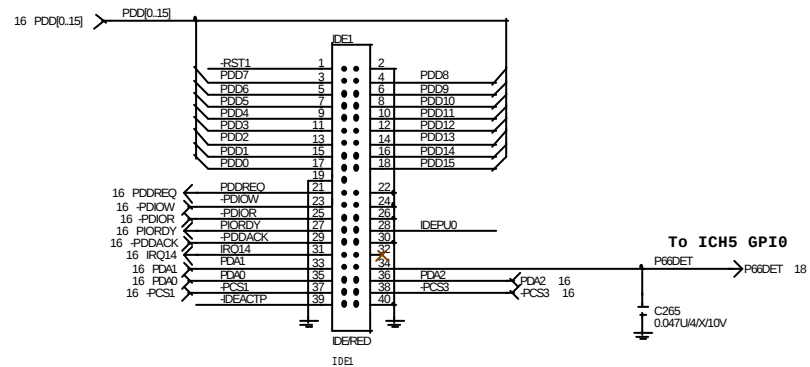
COM & IR & LPT PORT & FLOOPY



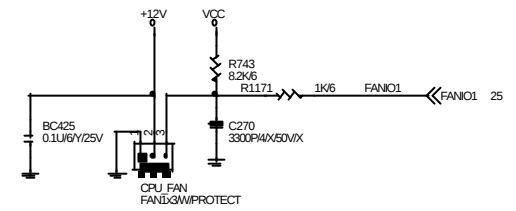
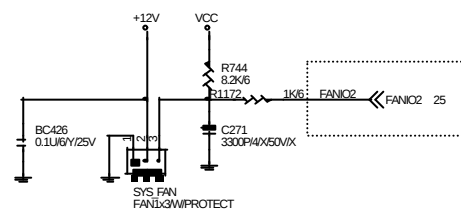
PRIMARY IDE CONNECTOR



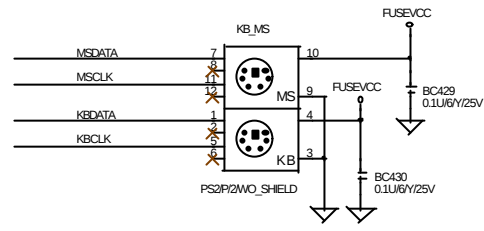
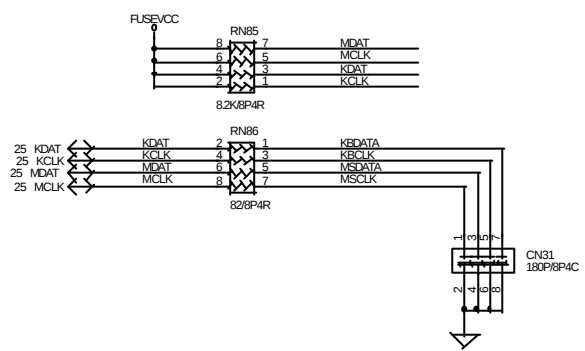
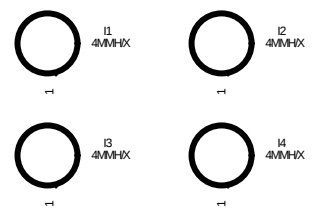
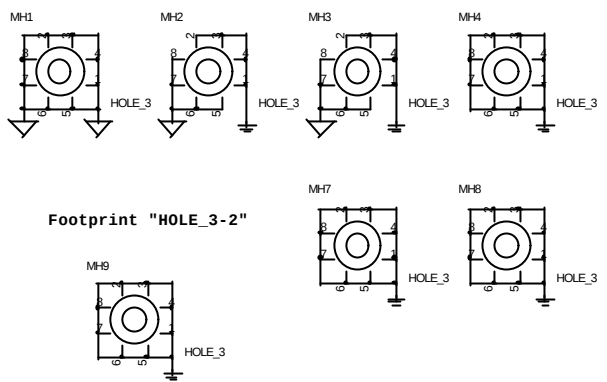
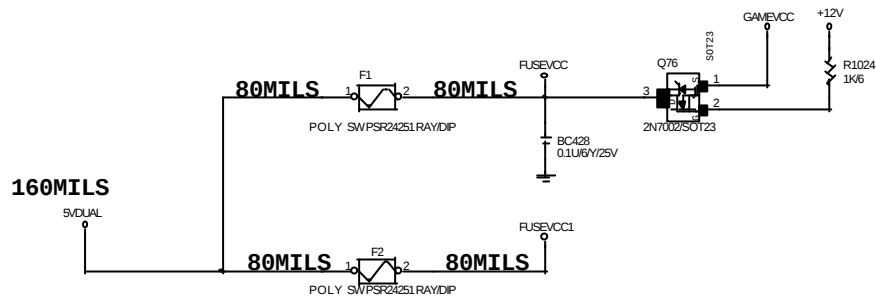
SECONDARY IDE CONNECTOR



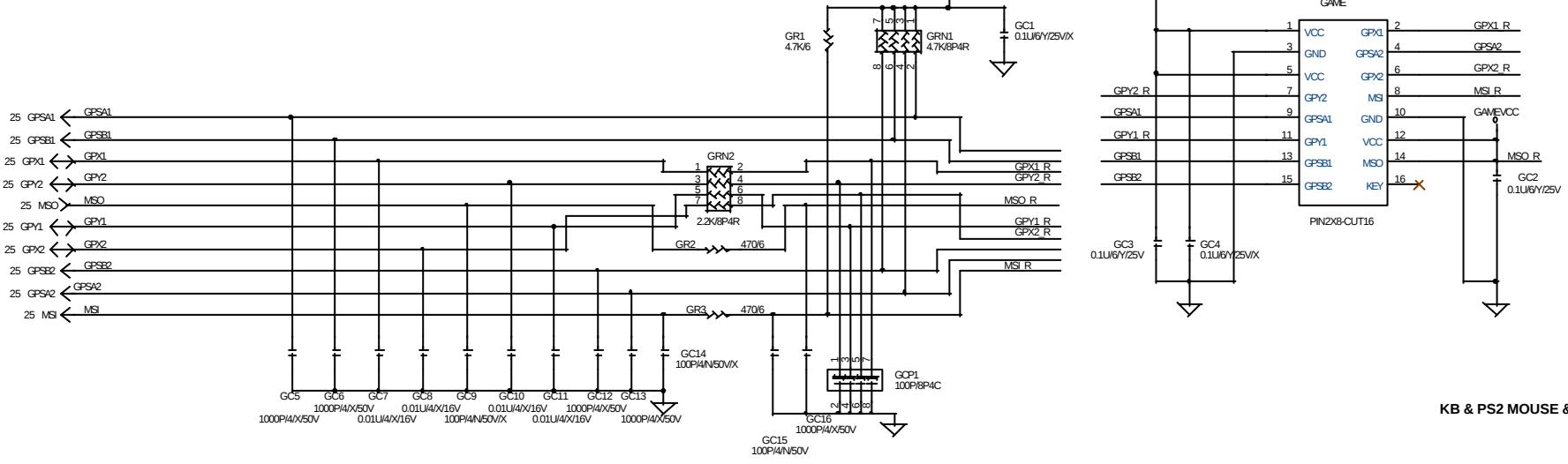
IDE CONNECTO



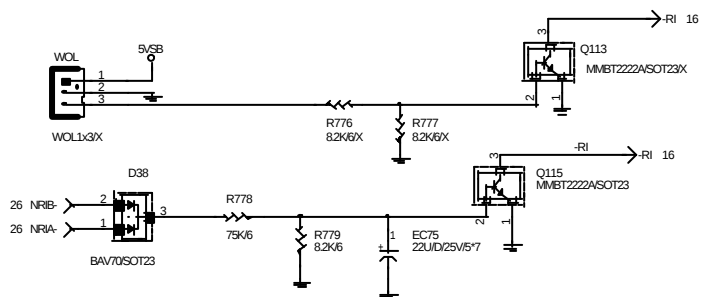
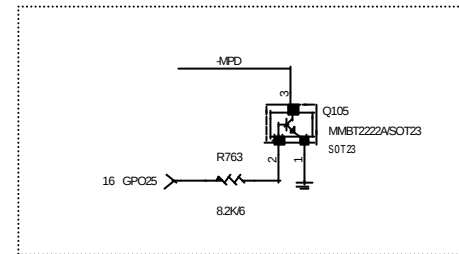
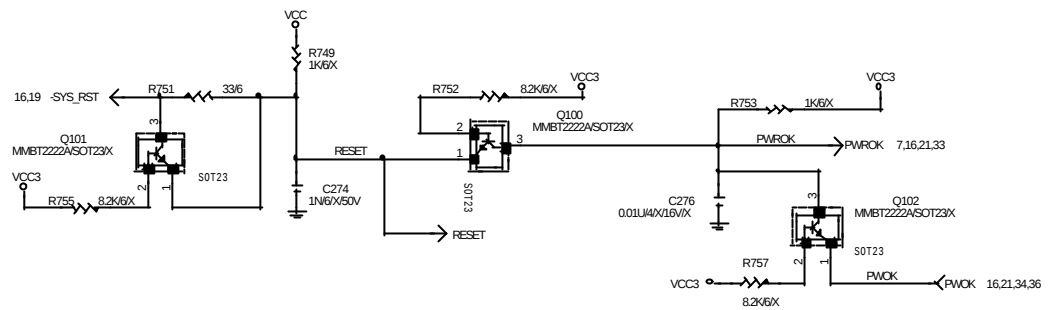
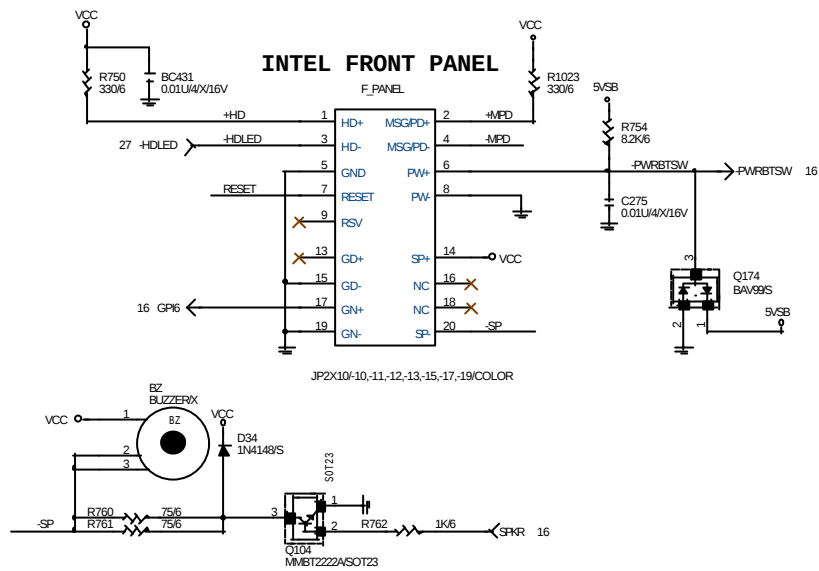
FAN/HWMO



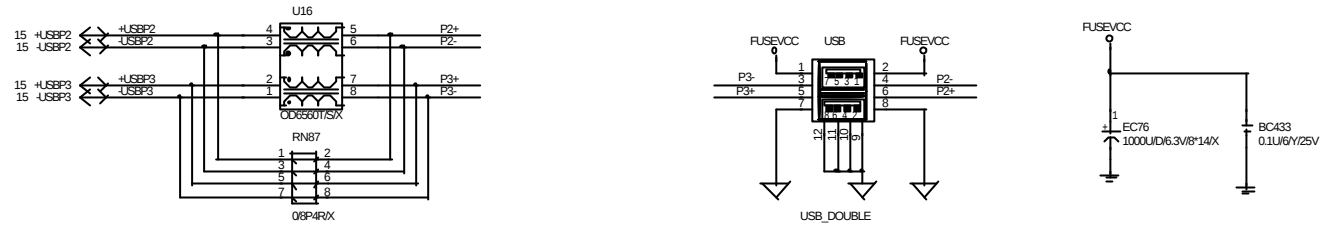
GAME\_PORT



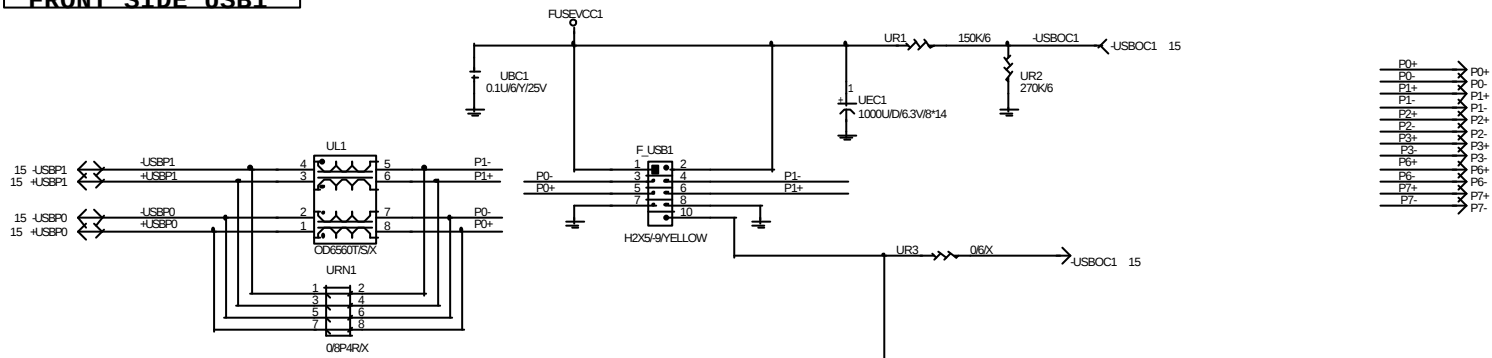
KB & PS2 MOUSE & IR



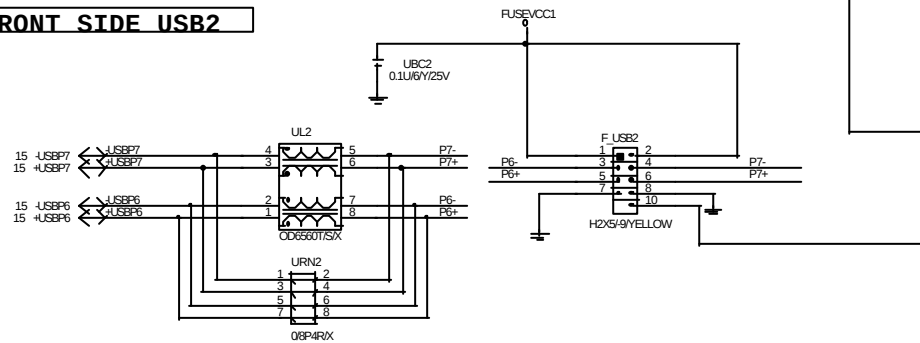
## REAR USB



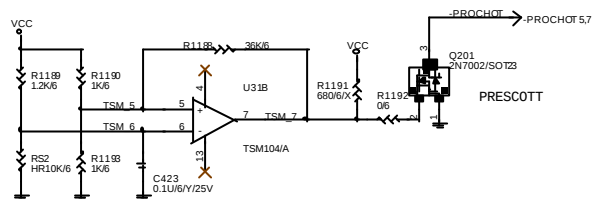
## FRONT SIDE USB1



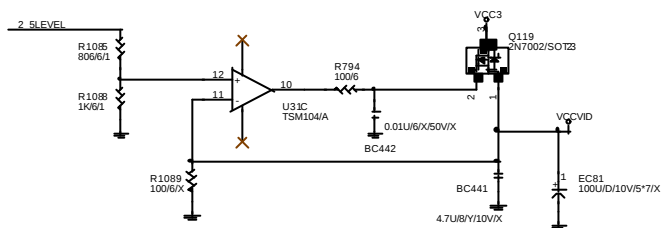
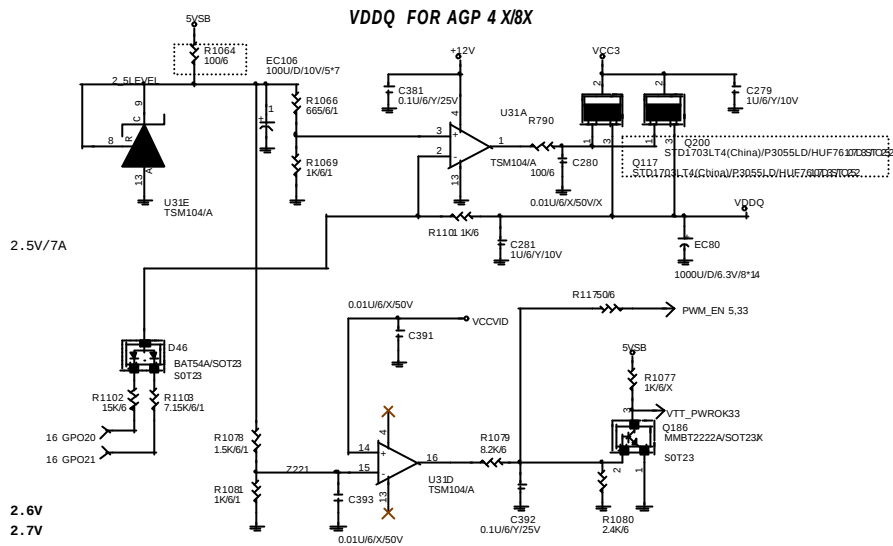
## FRONT SIDE USB2

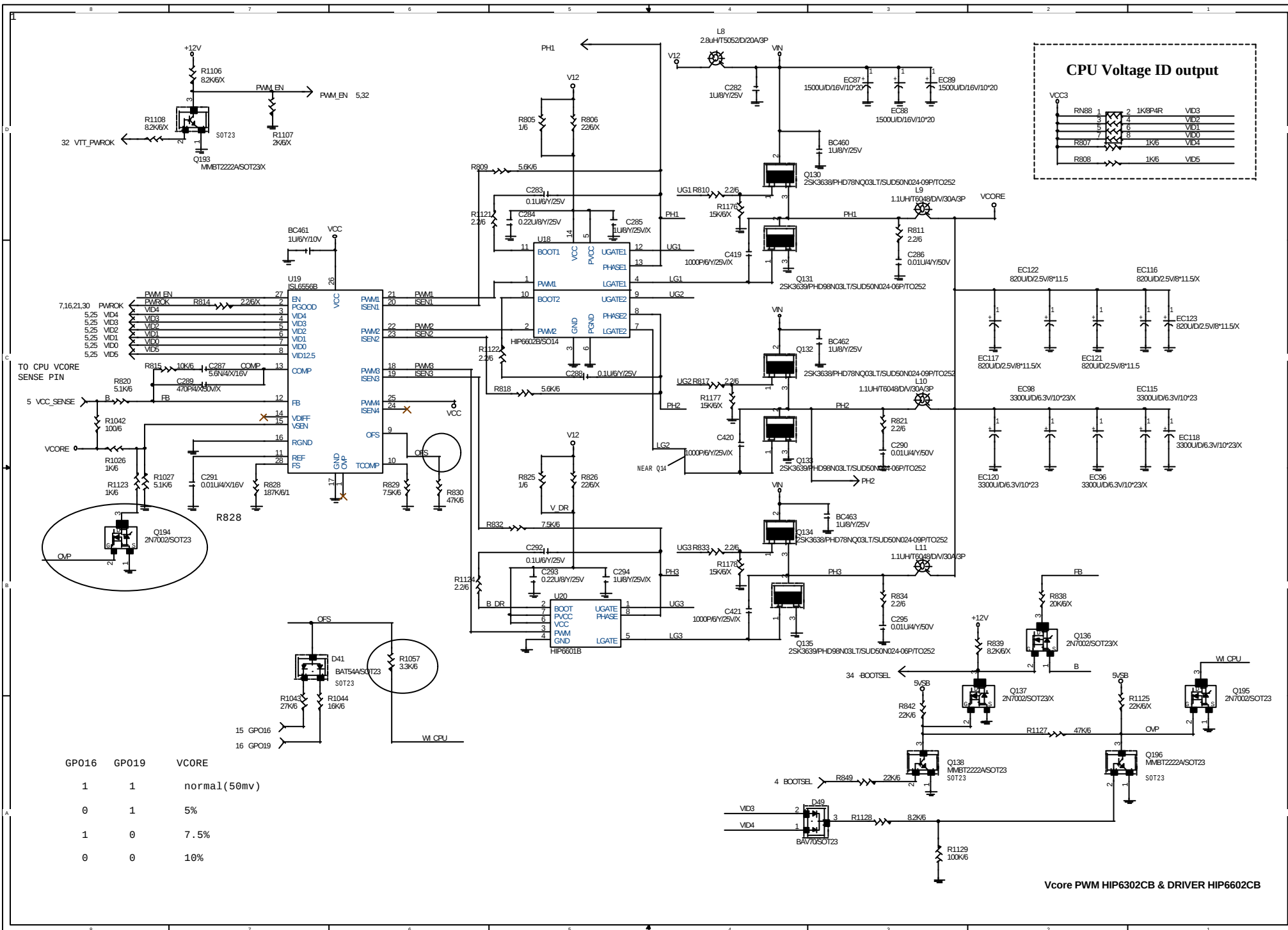


ICH USB PORT

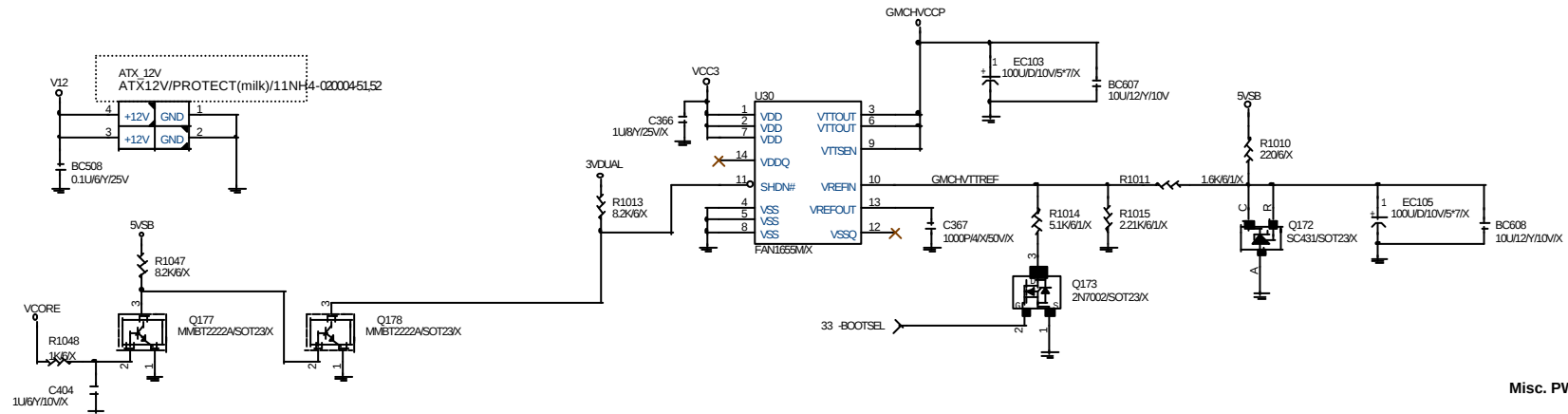
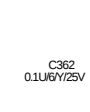
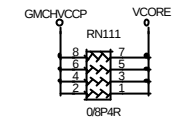
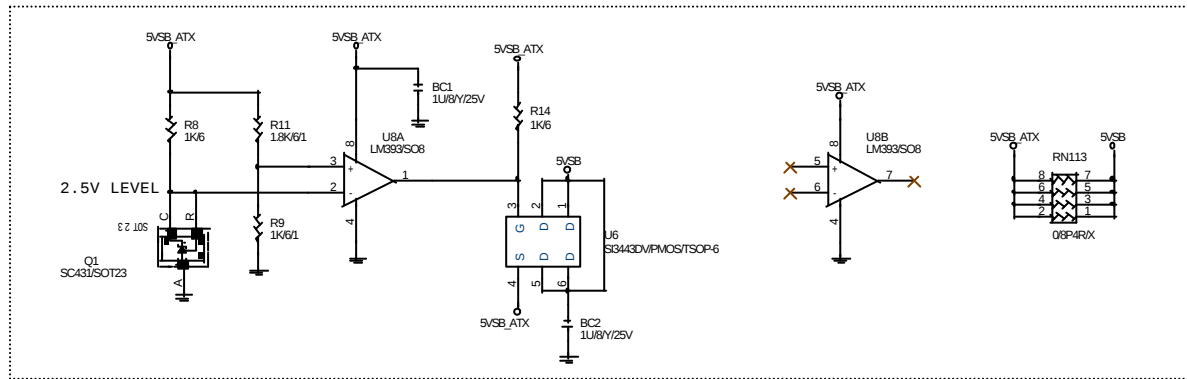
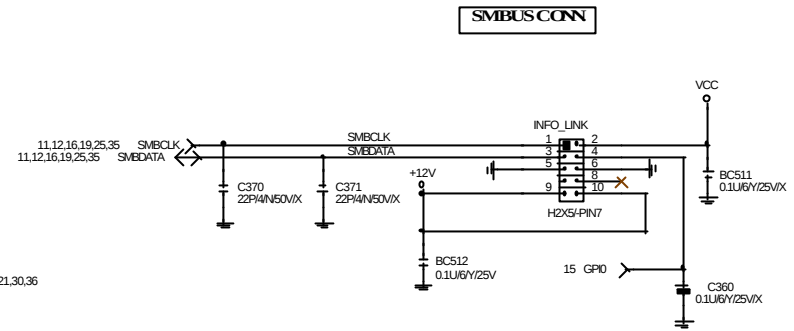
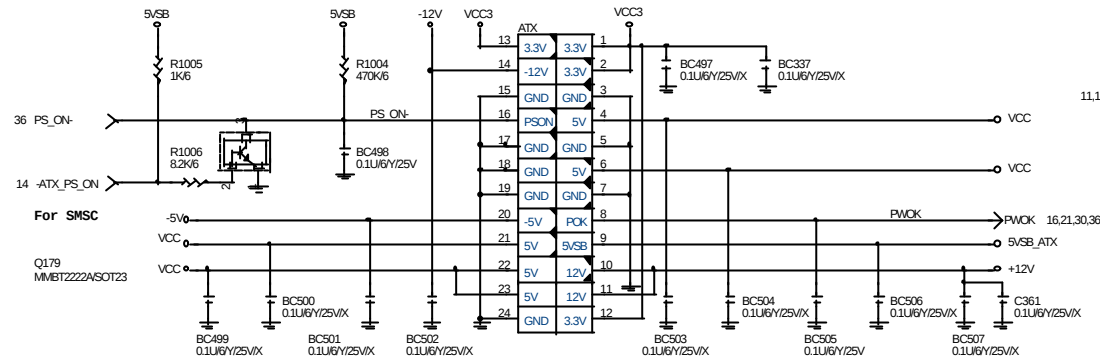
**DD R25V FOR DDR DIMM & NB**

| DDROVP1 | DDROVP2 |      |
|---------|---------|------|
| 1       | 1       | 2.6V |
| 0       | 1       | 2.7V |
| 1       | 0       | 2.8V |
| 0       | 0       | 2.9V |



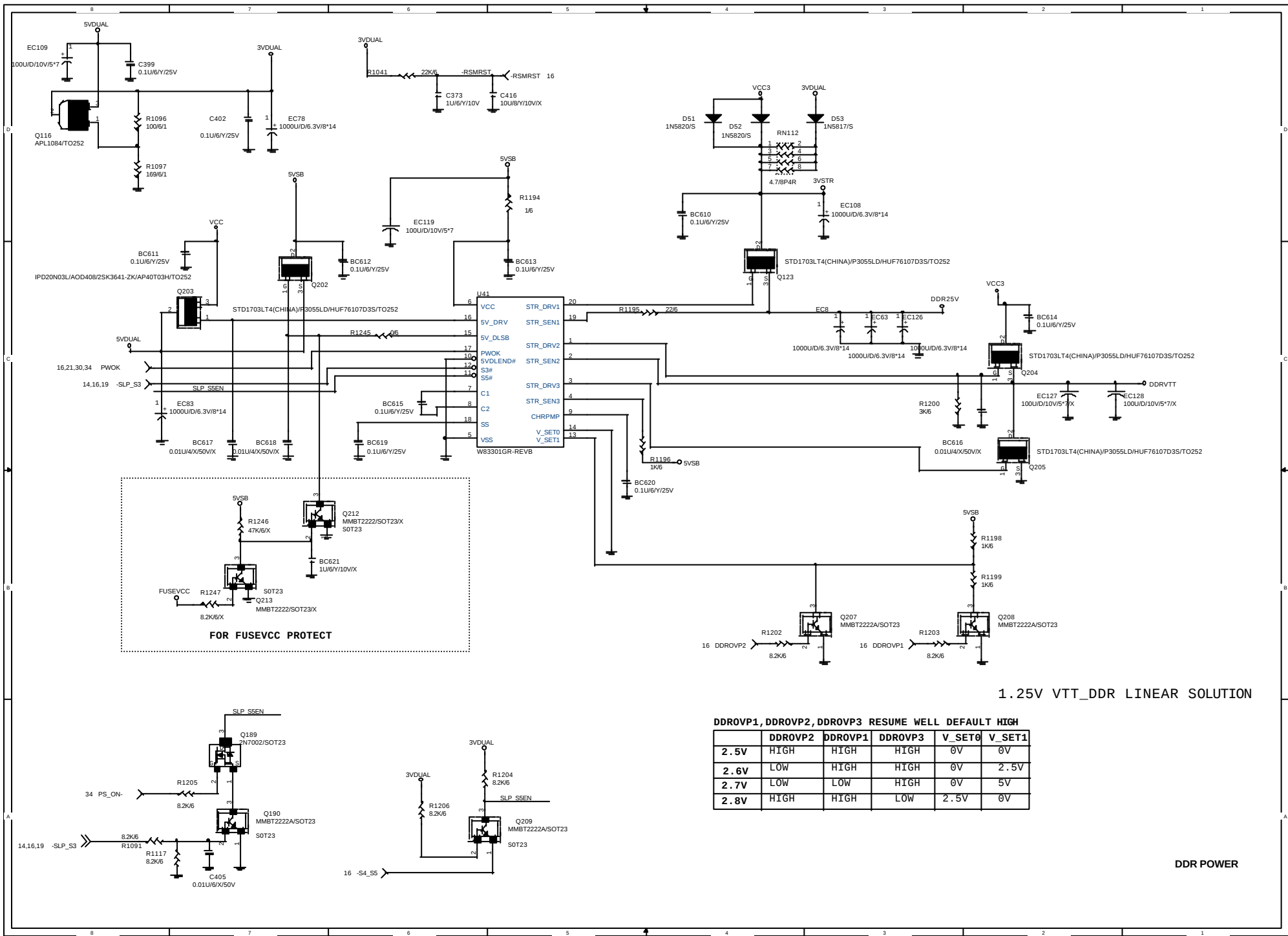


# ATX POWER CONNECTOR



Misc. PWR & ATX CONN.





| DDROVP1, DDROVP2, DDROVP3 RESUME WELL DEFAULT HIGH |         |         |         |        |        |
|----------------------------------------------------|---------|---------|---------|--------|--------|
|                                                    | DDROVP2 | DDROVP1 | DDROVP3 | V_SET0 | V_SET1 |
| 2.5V                                               | HIGH    | HIGH    | HIGH    | 0V     | 0V     |
| 2.6V                                               | LOW     | HIGH    | HIGH    | 0V     | 2.5V   |
| 2.7V                                               | LOW     | LOW     | HIGH    | 0V     | 5V     |
| 2.8V                                               | HIGH    | HIGH    | LOW     | 2.5V   | 0V     |



# GIGABYTE GA-8IPE1000-G GPIO LIST

SHEET

TITLE

| GPIP           | I/O | FUNCTION                               |
|----------------|-----|----------------------------------------|
| GPI0/REQA-     | I   | PULL HIGH 8.2K to VCC3, SMB connector. |
| GPI1/REQ5-     |     | PULL HIGH 8.2K to VCC, REQ5-.          |
| GPI2/PIRQE-    |     | PULL HIGH 8.2K to VCC3, PIRQE-.        |
| GPI3/PIRQF-    |     | PULL HIGH 8.2K to VCC3, PIRQF-.        |
| GPI4/PIRQG-    |     | PULL HIGH 8.2K to VCC, PIRQG-.         |
| GPI5/PIRQH-    | NA  | PULL HIGH 8.2K to VCC                  |
| GPI6/AGPBUSY-  | I   | PULL 8.2K TO VCC3, PANEL GREEN_BUTTON  |
| GPI7           | I   | DUAL BIOS FIRST BOOT SELECT.           |
| GPI8           | I   | PULL 8.2K TO 3VDUAL, -CASPMI.          |
| GPI9/OC4-      | NA  | USB OC4-.                              |
| GPI10/OC5-     | NA  | USB OC5-.                              |
| GPI11/-SMBALRT | NA  | PULL 8.2K TO 3VDUAL, -SMBALERT.        |
| GPI12          | I   | PULL 8.2K TO VCC3,M/B REVERSION ID.    |
| GPI13          | I   | LPC PME.                               |
| GPI14/OC6-     | NA  | USB OC6-.                              |
| GPI15/OC7-     | NA  | USB OC7-.                              |
| GP016/GNTA-    | NA  | GP016.                                 |
| GP017/GNT5-    |     | GNT5-.                                 |
| GP018/STP_PCI- | NA  | GP018.                                 |
| GP019/SLP_S1-  | 0   | DUAL BIOS.                             |
| GP020/SLP_CPU- | 0   | DUAL BIOS.                             |
| GP021/C3_SATA- | 0   | BLOCK TOP TABLE.                       |
| GP022/CPUPERF- | 0   | PULL 8.2K TO VCC3,PANEL S3 POWER LED.  |

SHEET

TITLE

| GPIP  | I/O | FUNCTION                                |
|-------|-----|-----------------------------------------|
| GP016 | 0   | PULL 8.2K TO VCC3 VCORE                 |
| GP017 | 0   | PULL 8.2K TO VCC3 (GNT5-)               |
| GP018 | 0   | PULL 8.2K TO VCC3                       |
| GP019 | 0   | PULL 8.2K TO VCC3 VCORE                 |
| GP020 | 0   | PULL 8.2K TO VCC3 VDDQ                  |
| GP021 | 0   | PULL 8.2K TO VCC3 VDDQ                  |
| GP022 | 0   | PULL 8.2K TO VCC3 FSB H/W stripping     |
| GP023 | 0   | PULL 8.2K TO VCC3 PWOK                  |
| GP024 | I/O | PULL 1K TO 3VDUAL DDR25V                |
| GP025 | I/O | PULL 4.7K TO 3VDUAL, LAN 100/10 DETECT. |
| GP026 | I/O | NOT IMPLEMENTED                         |
| GP027 | I/O | PULL 8.2K TO 3VDUAL LED                 |
| GP028 | I/O | PULL 8.2K TO 3VDUAL DDR25V              |
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GPIO LIST